Goe (H.C.)

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The Most Favorable Time
for Operation.

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Professor of Gynecology at the New York Polyclinic; Gynecologist to the Cancer Hospital: Obstetric Surgeon to Maternity Hospital: Assistant Surgeon to the Woman's Hospital.

BEPRINTED FROM

THE AMERICAN JOURNAL OF OBSTETRICS, Vol. XXVI., No. 4, 1892.

NEW YORK: WILLIAM WOOD & COMPANY, PUBLISHERS, 1892.





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ELECTIVE CESAREAN SECTION.

THE MOST FAVORABLE TIME FOR OPERATION.

THE literature of Cesarean section is already so voluminous and has received so many valuable additions from German surgeons, whose individual experience almost equals our united experience, that it seems presumptuous to pretend to advance anything that is novel or interesting in connection with the subject. Our opportunities have been so limited that few of us have been able to report even as many as four operations—too small a number to warrant us in speaking ex cathedra. Yet the lessons which we have learned from both our failures and our successes have been none the less valuable. The Sänger operation should possess especial interest for the Fellows of this Society, since we have contributed a respectable share of the successful cases to the statistics of the last decade, there having been seventy in the United States during that period, with a maternal mortality of forty per cent. With a tinge of local pride our Brooklyn and New York Fellows can point to eighteen, performed by nine different surgeons, with a mortality of thirty-three and a third per cent, four of the six fatal cases being particularly unfavorable, while one death (case of Dr. Grandin's) was due to puerperal mania and cannot be referred to the operation. It is interesting to note that the ten sections reported since 1889 were practically elective—i.e., they were performed as a substitute for embryotomy—and that they were all successful. The number of such operations in this country is still relatively small. In this paper I would venture to use the term "elective" in a narrower sense, restricting it to those few cases in which, having examined the patient during the latter months

¹ Read at the seventeenth annual meeting of the American Gynecological Society, September 20th, 1892.

of pregnancy, we deliberately decide to resort to the section as the first and only procedure to be adopted. Now, it is under these circumstances, when we have the patient under observation in a hospital, that the important question arises: When is the most favorable time at which to operate? Shall we choose our own time, or allow this to be determined for us by the onset of labor?

Our distinguished Honorary Fellow, Dr. Harris, to whom I am indebted for the statistics quoted, has clearly shown that the two elements of success are early operation and perfect technique. With regard to the operative details we are practically unanimous, with this important exception: our Philadelphia friends seem to regard Kelly's dictum as a sound one—that the uterus should be opened in situ. However successful this may be in the hands of an expert, it has always appeared to me to be erroneous teaching for the occasional operator and calculated to vitiate the most careful aseptic precautions. But this is only a difference of opinion. It is not necessary to discuss the technique of abdominal surgery before such an audience.

It is curious to note the uniformity with which writers on obstetrics repeat the injunction: Do not operate until labor has begun! In commenting on his recent successful case Dr. T. G. Thomas says: "It is a matter of the first importance that the operation should be performed, not before nor after, but during the first stage of labor. Before full establishment of this, and after escape of the liquor amnii, the chances of success are greatly diminished." In order to secure this supposed indispensable element of success in the case in question, the patient was kept in a state of suspense for five weeks after the operation had been decided upon. The dangers which, it has been urged, will be incurred by those who disregard this rule are serious hemorrhage, due to imperfect contraction of the uterus, and the retention of the lochial discharge by reason of non-dilatation of the cervix. I am convinced that these dangers are imaginary, that the adverse opinion so generally and forcibly expressed is based purely on theory, and, like many other time-worn traditions in medicine, must yield to the evidence afforded by clinical

¹ New York Medical Record, May 14th, 1892.

observation. My own experience, though limited to the two following cases, entirely accords with the view entertained by Harris, that, other things being equal, we increase rather than diminish our chances of success by operating before the commencement of labor.

CASE I .- (The patient was shown at a meeting of the Obstetrical Society in the spring of 1891.) Primipara, æt. 22 four feet six inches in height, rachitic, with marked kyphoscoliosis. Conjugata vera estimated at less than three and one-half inches, with lateral obliquity of the pelvis. She was admitted to Maternity Hospital, and at a general consultation there was a unanimous approval of the elective Cesarean section. It was estimated that the patient was within a few days of full term. The day for the operation was fixed, the patient was prepared in the usual manner, and I operated without waiting for the beginning of labor, though, it is true, an unsuccessful attempt had previously been made to induce it. The placenta was directly in the line of the uterine incision, which was made after the uterus had been lifted out of the body and a rubber cord applied as usual. Little blood was lost, the uterus contracting firmly as soon as it was emptied. The cervix was sufficiently dilated to insure drainage. No fluid entered the peritoneal cavity. The child was vigorous and cried at once. The mother made a good recovery and is perfectly well to-day; the infant lived a year and died of some acute trouble.

As the following recent case possesses unusual interest from another standpoint, it will be reported later in detail. An abstract is presented.

Case II.—Multipara, et. 37. Has one child, 12 years of age, and miscarried at seven months, six years ago. The patient has been under my observation at intervals for seven years, during which time a small fibroma growing from the lower uterine segment gradually increased in size until it encroached upon the space between the uterus and bladder, compressing the right ureter and causing hydronephrosis. Coeliotomy was performed in the winter of 1890–91, and an unsuccessful attempt was made to remove the tumor, which was found to be extraperitoneal and inaccessible from above.

¹ American Journal of the Medical Sciences, vol. xcix., 1890.

After recovery the patient was quite well and menstruated for the last time October 27th, 1891. When six months pregnant she was examined by Drs. Lusk, Polk, and Tuttle, who advised against the induction of premature labor, believing that it would be better to allow the woman to go on to full term and then to perform coliotomy, with the view of either removing the tumor and then delivering per vias naturales, or doing Cesarean section.

The patient was kindly referred to me by her physician, Dr. Grace Peckham, when she had completed her eighth month. There was then no question in my mind as to the propriety of the operation, since, from the peculiar situation and increased growth of the tumor, the pelvic outlet was so blocked that a space of less than three inches was left for the passage of the fetus. The cervix was high up, on a level with the upper border of the symphysis, and could barely be reached with the finger tip. The patient's general condition was good and the child was well developed. The woman was kept under careful observation at her home, and was admitted to the Infant Asylum on July 22d, the estimated date of confinement being August 10th. She was examined by my colleague, Dr. Grandin, and was carefully prepared for the operation, which I decided to perform without delay, as she was extremely nervous and apprehensive. I operated July 26th, assisted by Drs. Peckham, Grandin, and Jarman. There was marked hydramnios and the placenta was situated anteriorly, as in the former case. The uterus contracted well and no more blood was lost than usual. As I was able to pass two fingers through the cervix, it was unnecessary to dilate it as I had intended. The child cried lustily as soon as it was removed. No fluid escaped into the peritoneal cavity. In spite of the extreme heat and the fact that it was necessary to resort to nutrient enemata during the first three or four days, because of the excessive irritability of the patient's stomach, she made a smooth recovery and was discharged at the usual time. At this time (two months after the operation) both the mother and child are perfectly well.

It will be noted that in both instances the patient entered the hospital before the termination of pregnancy, was carefully examined by competent judges, and Cesarean section was elected. The same course was then pursued as in an ordinary celiotomy; after due preparation the hour for the operation was appointed, and it was performed without haste or excitement, with the most favorable surroundings and skilled assistants. Uterine contraction was perfect, and it was ascertained by actual palpation that the cervix was sufficiently dilated to allow of proper drainage. No blood or amniotic fluid entered the peritoneal cavity, so that irrigation and sponging were unnecessary. The condition of the patients during the operation was such that it was possible to finish it deliberately and with due attention to minute details. The smooth convalescence and rapid involution of the uterus were like those of the normal puerperium. The children were more vigorous than ordinary.

Six other cases have been reported by American surgeons in which the operation was performed before labor, with five recoveries, the fatal case being a most unfavorable one of cancer of the cervix. In a fatal (unreported) case at the Cancer Hospital the mother's condition was very bad, yet neither in this, nor in the others to which reference was made, was the absence of efficient uterine contractions remarked. More striking evidence is afforded by two cases communicated to me by Dr. M. A. Thomas, in which he performed the section hurriedly in the latter half of pregnancy upon moribund women in order to save the children, no effort being made to control the bleeding. In spite of the condition of the patients and the entire absence of labor-pains, the uterus contracted thoroughly in both instances and there was remarkably little hemorrhage. Harris' report of cases of horn rip of the pregnant uterus (with a mortality of a little over twenty-eight per cent) furnishes additional evidence of the contractile power of the gravid uterus when its wall is incised. When we remember how confidently we rely upon this function in cases of accouchement forcé, a long argument seems unnecessary in order to convince the thoughtful observer that it is just as reliable a safeguard against hemorrhage in Cesarean section, especially as we are dealing here, not with a theory, but with an attested fact. The second objection urged against the operation before labor may be dismissed for the same practical reason.

¹ AMERICAN JOURNAL OF OBSTETRICS, vol. x., 1887, p. 673.

1 IMPROVED CESAREAN OPERATIONS

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No.	Date.	Operator.	Locality.	Hospital or private.	Age.	Height. Ft. In.	Cause of difficulty.	Time in labor.
1	Oct. 6th, '82	Dr. H. J. Gar- rigues.	New York	Hospital	30	4. 10%	Kyphotic deformity of pelvis.	6 hours
2	Dec. 26th, '83.	Dr. Charles Jewett.	Brooklyn	6.6	46		Cancer of the cervix uteri.	9 hours
3	April 7th, '84.	Dr. Geo. T.	New York	Private	31		Rachitic pelvis, c. v.	31/2 days
4	Aug. 17th, '86.		66	66	39	4. 6	2% in. Small pelvis; child	16 hours
5	Feb. 27th, '87.	Goelet.	6.	66	24		14% lbs. Small pelvis; child	12 hours
6	Mar. 22d, '87.		4.6	Hospital	24		12 lbs. Coxalgic deformity	Just begun
7	Oct. 31st, '87.	Lusk.		46	35		of pelvis. Cancer of cervix	2 to 3 hours
8	Nov. 21st, '87.	66	4.6	66	26	4. 9	uteri. Flat rachitic pelvis	6½ days
9	Feb. 24th, '88.		66	61	22	4. 7½	Generally contracted	12 hours
10	Mar. 1st, '88	Dr. Wm. M.	, 44		23		pelvis. Cancer of rectum,va-	12 hours
11	Aug. 17th, '88.	Polk.	66	66	27	5.	gina, and buttocks. Contracted kyphotic	10 hours
12	Aug. 28th, '88.	Dr. John S. Hawley.	44		32		pelvis. Cancer of upper va- gina.	Not in labor.
13	Dec. 13th, '88.		- 44	44	26	11 .11	Contracted kyphotic	11 hours
14	Feb. 15th, '89.	Lusk. Dr. A. Palmer Dudley.	6.6	46	16	4. 6	pelvis. Lateral and lumbar curvature of spine.	
15	Feb. 2d, '90	Dr. Robert A. Murray.		4.4	25	5. 1	Small pelvis; fetus transverse.	54% hours
16	June 29th,'90.	Dr. Edwin G. Cragin.			40		Cancer of the cervix	7 hours
17	July 13th, '90.		44	6.6	58		uteri. Pinhole os uteri; no dilatation.	Several hours active.
18	Aug. 9th. '90.	"		4.6	23		Contracted pelvis; narrow pelvic arch.	4 hours
19	Jan. 12th, '91.	Dr. Henry C. Coe.	44	**	22	4. 634	Rachitic pelvis, with kypho-scoliosis.	Not in labor.
20	Dec. 2d, '91	Dr. Charles Jewett.	Brooklyn	**	32	4.	Lumbo-sacral ky- phosis.	10 hours
21	Dec, 16th, '91.	46	66	66	20	4. 6½	Flat rachitic pelvis.	9% hours
22	Feb. 28th, '92.	Dr. T. G. Thomas.	New York	66	20	4. 5	Deformed pelvis, c.v. 2%.	12 hours.
23	July 26th, '92.	Dr. Henry C. Coe.	66	6.6	35	4. 11	Fibroma of cervix uteri.	Not in labor.
23	July 26th, '92.		66	66	35	4. 11		Not in

As a matter of fact, it has *not* been found that the cervical canal was so contracted as to prevent the escape of the lochia. Even if it were, the surgeon could easily convince himself of this fact during the operation, and could provide against it by passing a strip of iodoform gauze through into the vagina. If the uterus proved to be atonic it could be ¹Prepared by Dr. Robert P. Harris.

IN NEW YORK AND BROOKLYN.

Condition of woman before operation.	Treatment of uterine wound.	Result to woman.	Result to child.	Cause of death in woman.	Reference.
	12 deep and 12 super- ficial sutures of silk		Dead	Shock, in 50 hours.	Am. Jour. Obstet., April, 1883, p. 344.
	20 deep and superfi- cial, of sublimated silk.	66	Lived a year	Peritonitis, in 45 hrs. —Erysipelas in hospital.	N.Y. Med. Jour., 1885, xlii., pp. 231-233.
Very unfavorable.		6.6	Dead		N. Y. Med. Jour., Sept.6th, 1884, p 260
Weak and pros- trated.		6.6		Unaccountable vom iting.	Communicated to Dr. R. P Harris.
	About 20 deep catgut sutures.	Recov'd.	Lived		Communicated to Dr.
Favorable	16 deep, 18 superfi-	66	* 6	*****	R. P. Harris. N. Y. Med. Jour., 1887, xlv., p. 505.
Very unfavorable from the disease.	13 deep of silver and	4.6	**	Died from the cancer Jan. 1st, 1888.	Trans Am. Gyn. Soc., 1888, xiii., pp.110-141
pulse 136.	16 superficial of silk. 7 deep of silver and 9 superficial of silk.		Lived 36		Trans Am. Gyn. Soc.,
Favorable	6 deep of silk and 8 superficial of silk.	65	Lived		1888, xiii., pp.110-141 Am. Jour. Med. Sci., May, 1888, p. 439.
pulse 168.	9 deep of silver and 19 superficial of silk.		44	Exhaustion.	Trans. Am. Gyn. Soc., 1888, pp. 138–39
	18 deep of s lver and 24 superficial of silk.	6.6		monary edema.	Trans. Am. Gyn. Soc., 1888, pp. 138-39.
Albuminuria; pulse 120 to 140.	8 or 10 deep silk, su- perficial continued catgut.		6.6	Septic peritonitis in 8 days.	N. Y. Med. Jour., 1889, l., pp. 428-430.
Very unfavorable; psoæ abscesses.		61	5 hours	Collapse and heart failure in 4% days.	283-285.
Not thought unfavorable.	Catgut sutures. deep, semi-deep, and su- perficial.		Lived 5 months.		Am. Jour. Obstet., N. Y., Exiii., 1890,
hand protruding;	Silk sutures, 18 deep,	4.6	Lived		pp. 712-719. N. Y. Med. Jour., li., 1890, p. 678.
pulse 120. Fair		Died	Lived a few hrs.	Septicemia.	Communicated.
tion to avoid cra-	10 deep silkworm gut sutures; continuous			Exhaustion and puerperal mania on	Trans. Am Gyn. Soc., 1890, xv., pp. 387-93.
niotomy. Pulse 74; operation	Lembert of catgut. 8 deep silkworm gut sutures; continuous	Recov'd.	6.6	13th day	Opus cit., 1890, xv., pp. 393–400.
tomy	Lembert of catgut. 9 deep sutures of				Internat. J. Surg.,
Favorable	braided silk; 17 sero- serous of fine silk. 12 deep silk sutures,	6.6	"		N. Y., 1891, iv., pp. 101-103. N. Y. Jour. Gyn. and
	superficial of fine catgut.				Obstet., 1892, ii., pp. 177–186.
Pulse 98, tempera- ture 108 3-5°; "neurotic."	10 deep silk sutures, superficial uninter-	6.6	Living, 6 months.		N. Y. Jour. Gyn. and Obstet., 1892, ii, pp. 177–186.
	rupted of same. Deep silk sutures, 3 to an incb, 1 super-	6.6	Lived		N. Y. Med. Record, 1892, xli., pp. 534-536.
	to an men, I super.				

packed with gauze, which would then serve as both a hemostatic and a drain, to be removed subsequently per vaginam. Note in this connection Grandin's case of contraction of the os, in which he dilated the cervical canal and inserted gauze on the third day after operation, with the desired result.

¹ Transactions of the American Gynecological Society, vol. xv., p. 309

The advantages secured by operating before labor may be briefly summarized as follows:

I. To the Surgeon.

- 1. After obtaining all the needed counsel, he sets his own time for the operation during the day, and is not summoned hurriedly at night to operate by imperfect light and without his regular corps of assistants.
- 2. He secures the same conditions as in an ordinary coclictomy—thorough preparation of the patient, rooms, instruments, etc.
- 3. Since the patient is in the best possible condition, he is not hurried, is not obliged to "work against time," slurring those numerous minor details which are so essential to success. This is all-important to American surgeons, the majority of whom are necessarily tyros, who need to secure every possible advantage. Our statistics, it must be remembered, are not like those of our foreign confrères; they are made up of the experiences of many individuals, each of whom must do his best in order to support our national reputation.

II. To the Patient.

- 1. She is spared the suspense incident upon long waiting. This is an important consideration, which strongly influenced me in Case II. This patient was in such a nervous state that, had I delayed the operation for two weeks after she entered the hospital, I doubt if she would have survived it. We recognize the importance of the *morale* in ordinary cases of abdominal section; how much more important here, where two lives are at stake!
- 2. Having been thoroughly prepared for the operation, she goes to the table in such a condition that the element of shock is reduced to a minimum and the subsequent convalescence is more rapid and uncomplicated.
- 3. Asepsis is perfect. As no examination of the genital tract has been made on the day of the operation, there is no chance for infection in this way. Sepsis can never be positively excluded under contrary conditions, especially where labor is induced in the usual manner.

I have sought to show as concisely as possible that the two essentials to success—early operation and perfect technique—are intimately related to each other, so that in securing the

one we secure the other. Operate early and you give both patient and surgeon every possible advantage. The elective operation should be made such in every sense of the word; it should be subject to the same rules as those which govern ovariotomy or abdominal hysterectomy. Let the surgeon choose his own time near the end of pregnancy, but before labor has begun, confident that he is thus acting for the best interests of both the mother and the child. Hemorrhage need not be feared, the danger of shock is lessened, and sepsis is eliminated. Believing, as I do, that future statistics will support me in this position, it is gratifying to remark that it is already held by five of our Fellows—Drs. Goodell, Jewett, Kelly, Parish, and Noble.

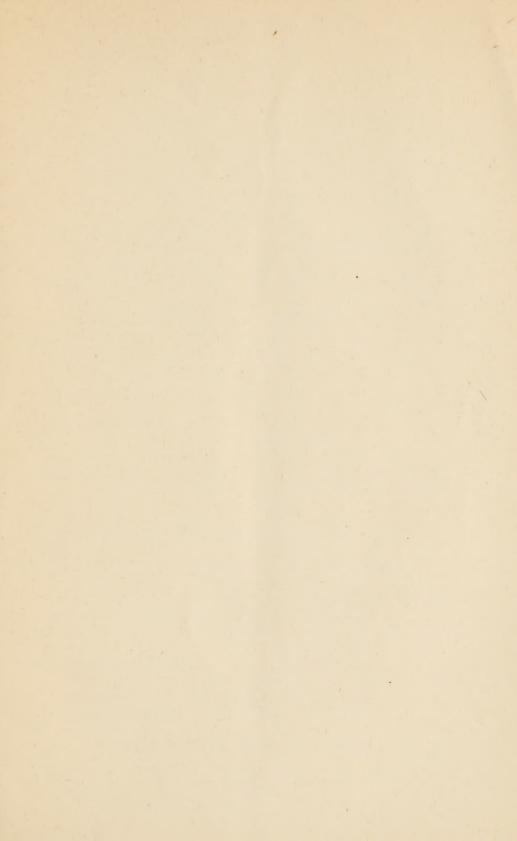
I had not intended to refer to the question of the justifiability of the operation per se, but the opportunity for learning the present state of your opinions is so favorable that I take the liberty of adding a few words in order to elicit discussion. Cesarean section is as yet a purely "hospital operation." Whether it will continue to be so or not (even if it is not replaced by symphysiotomy, at least in cases of moderate pelvic contraction) depends upon the attitude of the general profession. So long as it is regarded as a dernier ressort, to be adopted only after all means of delivery have failed, we can never hope to establish its claims except in hospitals. It is only when we have succeeded in placing it in the same category with other abdominal operations, and have demonstrated the fact that under the same conditions it is no more serious than an ordinary coliotomy, that we can expect to have it regarded as a primary obstetrical procedure. It is to be hoped that the coming practitioner will be so thoroughly instructed in pelvimetry that he will be able to recognize cases of contracted pelvis and will seek counsel before the onset of labor. Then if, after a careful review of the case and with the perfect understanding of the patient and her family, Cesarean section is elected, it can be performed, under the conditions already mentioned, with a confident expectation of success. We would not think of waiting until a woman was on the table before asking her whether she preferred to have an ovarian cyst aspirated or removed—why not apply the same principle to the Cesarean operation?

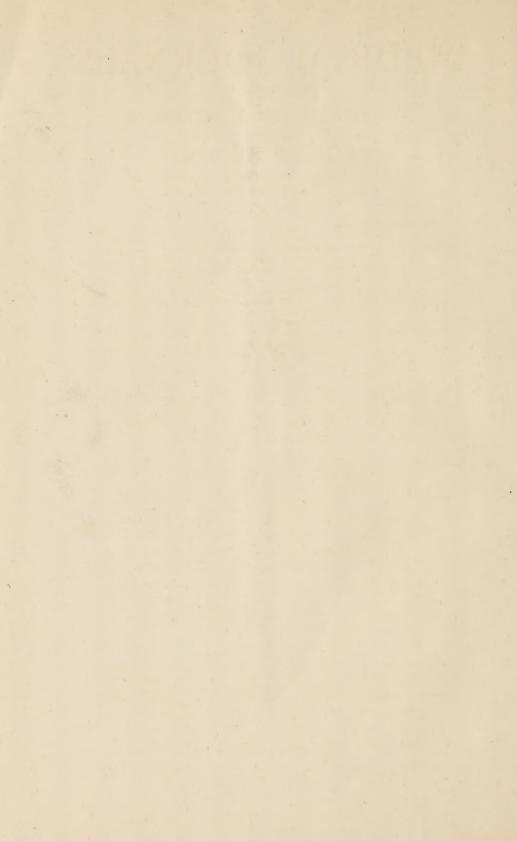
From the trend of society discussions during the past two or three years it is evident that there is still considerable opposition to the operation from the standpoint of relative indications. It is not my purpose to discuss this question, but I do protest against the insinuation that Cesarean section has been performed hastily and inconsiderately by members of this honorable body. I do not know a single instance in which it has been resorted to except after thorough, earnest consultation, with the best interests of the mother and child in view. On the contrary, how many of us can recall cases of embryotomy in which we sincerely regret that we had been so conservative, instead of insisting upon the section! The comparatively small number of operations performed in the United States, and the publicity which has been given to them, are sufficient proof of the fact that there have been none of which we need feel ashamed. The next ten years will witness a notable improvement in our statistics. I do not believe that, by reason of the importance which has been assigned to abdominal surgery, we are in danger of neglecting minor manipulations in either gynecology or obstetrics, or of losing the manual dexterity of the old school. We are bolder now; why, then, is it surprising that we should seek to "catch the nearest way," providing that it is just as safe as the old circuitous route? There is only one way in which to disarm criticism. It is pre-eminently true of surgery that Rien ne réussit comme le succès.

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